

Amador High Country Routes

Purpose and Need and Proposed Action

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USDA Forest Service, Eldorado National Forest, Amador Ranger District
Amador and Alpine Counties, California

Background

This analysis is tiered to and is part of the implementation of the Record of Decision for the 2013 Eldorado National Forest Travel Management Supplemental Environmental Impact Statement (TM SEIS), which identified 18 routes where corrective actions were needed prior to adding the routes back onto the Eldorado National Forest Motor Vehicle Use Map (MVUM) as designated for public wheeled motor vehicle use. As stated in the 2013 TM SEIS, trails would remain closed to public motorized vehicles until 1) the routes were brought into compliance with the 2004 Sierra Nevada Forest Plan Amendment (SNFPA) Standard and Guideline 100 as it pertains to meadows, and 2) a Biological Assessment and conferencing or consultation with U.S. Fish and Wildlife Service were completed if corrective actions or vehicle traffic could affect the Sierra Nevada yellow-legged frog (SNYLF) or the Yosemite Toad or their critical habitats.

The project is located at meadows 17E24-3, 17E24-4 and 17E24-5 on the Carson Emigrant National Recreation Trail (17E24) and meadows 09N82-2 and 09N82-7 on the Hungalelti Ridge 4wd Trail (16E26). These locations were identified in the TM SEIS as not meeting SNFPA Standard and Guideline 100 with respect to hydrologic connectivity of the meadows.

During site visits with the interdisciplinary team in 2014 and July, 2015, Meadow 09N82-3 on Hungalelti Ridge Trail and Meadow 17E28-7 on the Long Valley Trail were re-evaluated and determined to be meeting SNFPA Standard and Guideline 100.

In addition to the corrective actions needed to comply with SNFPA Standard and Guideline 100, the proposed action will address some proposed work at a crossing of a tributary to Bear River on the Long Valley Trail (17E28) where sediment has the potential to enter a creek, and analyze a change in the vehicle type designation on the northernmost .52 mile section of the Long Valley Trail. This section of the trail is full width for High Clearance vehicles and has been used to access dispersed recreation sites on the west side of Mud Lake for many years. The current vehicle type designation, however, does not differentiate between this section of trail and the remainder, which is single track. The entire route is currently designated for Motorcycles Only.

Purpose and Need

The primary purpose of this project is to implement corrective actions for the selected routes as prescribed in the Record of Decision for the 2013 TM SEIS to comply with the SNFPA Standard and Guideline 100 as it pertains to OHV routes and meadows in the Eldorado National Forest. Since the TM SEIS did not analyze the corrective actions necessary to bring each route into compliance with SNFPA Standard and Guideline 100, there is a need to complete environmental analysis on the actions needed to open routes identified in the SEIS as not currently meeting SNFPA Standard and Guideline 100.

Standard and Guideline (S&G) 100:

“Maintain and restore the hydrologic connectivity of streams, meadows, wetlands and other special aquatic features identifying roads and trails that intercept, divert or disrupt natural surface and subsurface water flow paths. Implement corrective actions where necessary to restore connectivity.”

The following meadows on the Carson Emigrant Trail and the Hungalelti Ridge Trail were identified as needing corrective actions:

Carson Emigrant National Recreation Trail (17E24)

Meadow 17E24-3 (near Mud Lake)

Two rolling dips were constructed in the trail near the south end of meadow just north of the road barricade in June of 2015. Although that section of the trail has been repaired and reopened to public wheeled vehicle use, it would be desirable to reinforce those rolling dips with a gravel cap for longevity.

Meadow 17E24-4 (near Allen’s Camp)

There are two small stream crossings in the trail, one perennial and the other intermittent, as it traverses the northern edge of this meadow. There are not rills in the surface of the road or obvious road derived sediment in the channel. Vehicle crossings on the gravel substrate in the crossing does stir up silt and fine sands from the interstitial pores of the gravel and create small sediment plumes to a pool below the crossing. These streams flow into the meadow at Allen Camp where Sierra Nevada yellow-legged frogs have been observed in the past.

Meadow 17E24-5 (between Allen’s Camp and Hungalelti Ridge)

The area of concern is a segment of the trail approximately 200-300 yards long located in a steep drainage with a meadow complex occupying several fan features within the drainage. The

meadow areas are cut through by several recently scoured channels originating from the ridge and influenced in no small part by the denuded state of the upper slopes, but not associated with road. Water from the top end of this trail section runs 300 feet down the trail before draining onto a meadow, resulting in an incipient gully. There are also two perennial springs on the upslope side of the road that emanate from the contact of a volcanic conglomerate and underlying granodiorite less than 100 feet upslope of the road. Water from the springs runs down the road 50 feet or more before exiting, in one case creating an incision in the loamy base of up to 3 feet. The water running down the trail has also created deep ruts in the trail. At one shady location where snowbanks hang late in the year vehicles have traveled around off of the trail creating ruts in the adjacent meadow.

Hungalelti Ridge Trail (16E26)

Meadow 09N82-2 (near Martell Flat):

The route, part of the Carson Emigrant Trail, is very close to the topographic divide of a ridge running east to west. Large meadows occupy the slopes both north and south. The road is incised a maximum of 8 to 9 inches at the apex of a large meadow on the north slope (5 acres or more), part of a complex down the north facing slope. At that point road runoff ponds, and granodiorite bedrock is no more than 18 inches down. The hillsides appear to be very degraded having little basal vegetation, typically a loose sand surface that easily rills. There are many small scour channels coming off hillsides onto meadows and widespread evidence of sand/gravel sediment fans emanating from the hillsides. From the east the road has downslope gradient to the ponded point and a single drainage point where a small amount of granitic sand leaves the prism with no visible effect on meadows. The ponded point of the road has no drainage and affects (is lower than the natural surface) a very small portion of meadow, a few hundred square feet. It is not affecting hydrologic connectivity as water that collects there does not travel down the trail.

On the south approach to the meadow, a small amount of sediment was observed coming off of the steeper sections of the trail as they descend into the meadow. Several rolling dips appear to have been in place at one time on that section of the trail, but they have been worn down and are no longer very effective.

At a steep section just south of the meadow where the trail turns east before descending into the meadow, some erosion has been occurring and the trail has been widening as result of vehicles driving around the steep section. Some movement of sediment off of the trail below this location towards an extension of Meadow 09N82-2 below has occurred. The area affected is approximately 30-40 feet wide for 200 feet down a steep slope.

Meadow 09N82-7 (At the south end of Hungalelti Ridge Trail near the intersection with the Long Valley Trail (17E28):

The road parallels the meadow for 100 to 200 yards. The hill slopes above the meadow appear degraded with 40-50% or more bare ground, predominately mule ears and visibly high rate of surface ravel mounding behind rocks and vegetation. Geology of the slope is volcanic conglomerate with sparse granitic drift. Small scour channels forming on the hill slopes cut down into the meadow on both sides at multiple points. A small scour channel in the meadow does lead to a head cut of about 3 feet. This point seems a nexus of issues. A stump rooted in the fallen bank just below the head cut may have been a contributing factor, as well as a one-time two-track that ran up through the point of the head cut. The road does contribute runoff from about 25 feet of its length, but that is a minor amount compared to amount from the nearby slopes. A 200 foot section of road farther upslope does contribute runoff to a single point that enters the meadow. It has deposited a small amount of sediment, but without energy sufficient to cause any scour to the meadow surface.

Federally Listed Amphibian Species

The second purpose of this project is to analyze the potential effects of reopening the Carson Emigrant Trail (17E24), Hungalelti Ridge Trail (16E26), and Long Valley Trail (17E28) on the recently listed amphibian species, the Sierra Nevada yellow-legged frog and the Yosemite Toad, and confer/consult with USFWS regarding impacts to the newly listed amphibian species from both the proposed repair work and reopening the closed portions of the routes.

Long Valley Trail (17E28)

Although it was determined that the meadows on the Long Valley Trail were meeting S&G 100, the Interdisciplinary Team identified concerns with one crossing of a southern tributary to Bear River where erosion was occurring and the stream channel actively widening at the trail crossing. There were ponded areas of water just downstream of crossing that could be potential suitable habitat for SNYLF.

Vehicle Use Designation Change

The third purpose of this project is to consider a change in the vehicle type designation on the northernmost .52 miles of the Long Valley Trail to reflect the actual field conditions. The route is currently designated as a Motorcycle Trail. However, that section of the trail is used by 4wd vehicles to access dispersed camping sites on the west side of Mud Lake. The motorcycle trail actually begins near the south end of Mud Lake.

Description of Proposed Action:

Carson Emigrant National Recreation Trail (17E24)

The Eldorado National Forest, Amador Ranger District proposes to repair the Carson Emigrant National Recreation Trail (Forest route 17E24) at Meadows 17E24-4 and 17E24-5 and perform additional work at Meadow 17E24-3. Details of the repairs to be constructed include:

Meadow 17E24-3 (near Mud Lake)

Two rolling dips were constructed in the trail near the south end of meadow just north of the road barricade in June of 2015. Under this project, additional aggregate base rock may be brought in and installed as a cap on the rolling dips to strengthen them and ensure their longevity.

Meadow 17E24-4 (near Allen's Camp)

Construct a rolling dip in the trail on the east (uphill) approach to each of the two small stream crossings, one perennial and the other intermittent, to reduce the potential for sediment coming down the road and into the drainages.

Meadow 17E24-5 (between Allen's Camp and Hungalelti Ridge)

Reconstruct a segment of trail approximately 200-300 yards long that passes through a small complex of meadows and natural springs to stop the current diversion of water down the trail and restore the natural flow of water through the meadow complex. Five locations were identified along this segment of trail within the meadow complex where repairs are anticipated. The work will consist of some combination of the following: Construction of rolling dips, regrading sections of trail to correct drainage, and reconstructing sections of the trail in wet areas with permeable materials (rock and/or geotextiles, possibly small pipes) designed to allow the water to pass across the trail from meadow areas on the uphill side to meadow areas on the downhill side. Some aggregate base rock and/or riprap will be imported for use in the trail reconstruction. Slight alignment corrections may be made where users have driven around potholes or snowbanks. Up to 15 trees less than 12" dbh may be removed on the road shoulder to facilitate corrections in alignment and facilitate snow melt in one spot where vehicles have been deviating from the trail into an adjacent meadow area to get around a spot on the trail where snowbanks are late to melt. Tracks in the meadow vegetation in this location will be filled in with hand tools and slash placed to disguise the tracks and facilitate revegetation.

Hungalelti Ridge Trail (16E26)

The Eldorado National Forest, Amador Ranger District proposes to repair the Hungalelti Ridge 4wd Trail (Forest route 17E26) at Meadows 09N82-2 and 09N82-7. Details of the repairs to be constructed include:

Meadow 09N82-2 (near Martell Flat)

On the portion of the trail that drops down into the south side of Meadow 09N82-2, one or two rolling dips will be constructed, or existing dips or outlets cleaned out or repaired, to divert water and any sediment off of the trail before it reaches the meadow.

At the steep section just south of the meadow where the trail turns east before descending into the meadow, small check dams will be constructed below the trail where sediment appears to be moving off of the trail. Some rock and down woody material and will also be installed on the inside of the curve on the steep section of trail where the erosion has been originating to discourage traffic there, narrowing the trail to its proper width and providing cover for the exposed soil.

Meadow 09N82-7 (At the south end of Hungalelti Ridge Trail near the intersection with the Long Valley Trail (17E28):

Construct two or three rolling dips in the trail on the south western (uphill) approach to the meadow to dissipate runoff energy into multiple points onto the forest floor where there is an adequate buffer between the road and meadow to reduce potential for sediment to be delivered into the meadow. Woody debris would also be placed below the route in the locations where washing has been occurring across the route.

Long Valley Trail (17E28)

The Vehicle Use Designation on the northernmost .52 mile segment of Long Valley Trail (17E28) on the west side of Mud Lake would be changed from “NFTS Trail: Open to Motorcycles Only” to “NFTS Trail: Open to All High Clearance Vehicles” to permit legal access to dispersed camping sites on the west side of Mud Lake. The single track portion of the trail from Mud Lake to Onion Valley would remain designated “NFTS Trail: Open to Motorcycles only”.

Some repairs will be made to stabilize the crossing of the Long Valley Trail (17E28) at one of the southern tributaries to Bear River where concerns were identified regarding erosion of sediment into the creek. The trail approaches to the creek would be reinforced with rock to be collected from a nearby source to be approved by the District Archeologist and Botanist. The work on Long Valley Trail is anticipated to be done by hand.

Implementation:

Due to the need for mechanical equipment and imported rock material to complete the repairs at the remote location of meadows on 17E24 and 16E26, it is anticipated that a helicopter may be utilized to long line the equipment and materials in and out of the project sites. The anticipated construction period for use of the helicopter is August 15 - October 31. Staging areas for transfer of the equipment and materials from vehicles to the helicopter will be determined during the specialist review period for this project. Sites being considered include the Tragedy Springs Quarry, a previous construction staging area adjacent to the Lower Bear River Dam, and the old Iron Mountain Ski Area. It is anticipated that the equipment and materials would be dropped directly within the existing trail width so as not to impact other areas at the project sites. Some snags or live trees may need to be removed at drop points if it is determined that they will pose a hazard during construction. Water for compaction at trail improvements may be drafted from Mud Lake into a small tank on the back of a truck using approved fish screens. Permeon may be used on finished exposed rock within the trail to hasten the natural weathering of the rock and reduce visual impacts of construction.

Reopening of Trails

At the conclusion of the work planned for the Carson Emigrant Trail (17E24), Hungalelti Ridge Trail (16E26), and Long Valley Trail (17E28), it is anticipated that these three routes will be reopened to public wheeled vehicle use.